Activity: 3.8

Develop Software Quality Assurance Plan

Responsibility: Project Manager and Quality Assurance Manager

Description: The purpose of quality assurance is to assure the production and operation of

high quality products on schedule, within budget, and within the constraints specified by the system owner and user. The software quality assurance program is initiated at the beginning of a project and is conducted throughout the software engineering lifecycle. The software quality assurance program is the joint responsibility of the project manager and quality assurance manager with direct support and involvement from the quality assurance practitioners

assigned to the project.

Work Product: The quality assurance manager or designated representative assists the project

manager with the development of a plan that clearly defines the project's quality assurance policies and procedures. The Software Quality Assurance

Plan addresses the following types of responsibilities.

• Establishing the applicability of published standards and procedures and determining the scope of the project standards and procedures.

- Monitoring the software product and enforcement of compliance with all standards and procedures to facilitate the early detection of problems that could affect the reliability, maintainability, availability, integrity, safety, security, or usability of the software product.
- Inspecting hardware and software items and documenting for compliance to specifications and standards before their release to the test team or the system owner.
- Certifying deliverable items before their release to the system owner as compliant with all provisions of the project statement of work and contract, if applicable.
- Coordinating the project's technical problem reporting system and corrective action program to assure resolution of observed discrepancies.
- Measuring the quantitative and auditable progress of the project based on cost, schedule status, and quality status.
- Assuring consistent management and technical practices and the integrity of the software product.

Work Product, continued:

Provide enough information in the plan so that compliance can be monitored by means of project records. Whenever feasible, acquire automated tools to check compliance with project standards. For example, many CASE (computer-aided software engineering) tools can check compliance with standards, while checking the validity and consistency of requirements, design,

and logic diagrams.

Review Process:

Conduct a structured walkthrough to validate that the quality assurance policies and procedures are appropriate and adequate for the project.